

Subject: glowbugs V1 #144

glowbugs

Monday, October 27 1997

Volume 01 : Number 144

Date: Sun, 26 Oct 1997 07:19:49 +0000

From: Dave Heil <k8mn@clinet.fi>

Subject: More Hartleys

I've built two Hartleys over the past few years. My Elmer, Andy Timberlake W8MN, passed away a few years back. His widow gave me (in addition to all of his logs) drawers full of parts which he'd used for various rigs in the late twenties and early thirties. These had been stored in a rented space at the Hinton, WV ice plant along the New River. Flooding in the mid-30s covered the plant so all of the parts were covered in a dried muddy sediment. There were brown beehive insulators, Cardwell and King variables, large black Fleron standoffs, ceramic sockets and some of Andy's original copper tubing coils.

The first Hartley built was a small one for 80m using a single '45 mounted on a hunk of stained pine. It's prettier big brother was the 1930 QST type 210 design. I built it on a large piece of African mahogany (I was lucky enough to have been living in Botswana at the time). The only '10 I had was a dud so I'm using a NOS Taylor T-55. I've never had 'em on the air but you fellows are driving me to finish the power supplies and get 'em on the air.

Thanks and 73,

Dave Heil OH2/K8MN
downtown Helsinki

Date: Sun, 26 Oct 1997 13:00:24 +0100

From: Jan Axing <janax@algonet.se>

Subject: A regenny in operation

Hello, all.

My October project is working now. I still have a few things to do on it but I have had some success with it. Mine is a 6SN7GT design based on the design in the 1950 ARRL handbook. That design used plate voltage regen control but I quickly learned that the throttle condenser is the way to go. Instead of the interstage transformer I used a small 10H PSU choke and since I don't have a pair of tin cans I added a small output transformer to a pair of light weight hifi phones. At 40 volts on both plates I found a volume control handy. It's still not as smooth as I wish, it has a tendency to jump into oscillation with a barely audible thump. The schematics is available on my glowbugs page together with the original article at <http://www.algonet.se/~janax/glowbug.htm>

This is also a test to see if my latest email settings work.

Jan, SM5GNN

Date: Sun, 26 Oct 1997 20:31:26 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: Choke needed!

The swinging choke for my old Viking 500 blew up a couple of nights ago! I am in need of a swinging choke with the following specifications:

5-25 Henrys @ 450 ma.
Insulated for at least 2500 volts working.

Physical dimensions:
5-1/2" high (Might be able to tolerate 6")
4-1/2-5" wide
5-1/4 to 5-1/2" deep

Can be the standard "clamshell" upright mount (which is what is originally installed) or the "MIL" type sealed case with standoffs/terminals on one end. Anybody with something like this out there?

My old "5005" is QRT until I get a replacement. (Peter Dahl will be my last resort)

73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive
Metairie, LA., 70001

860 Hartley 'ECO' under construction**

Date: Sun, 26 Oct 1997 16:48:36 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
Subject: Re: Wednesday Night Activity

> Bob I tried to talk with you friday night. I am surprised that you
> couldn't hear my 800 watts. Yr heartily sounded pretty good here.

I heard you fairly well, but sad to report, Ol' Grandma Hartley had her first heart attack. She was sounding more squirrely than one of those classic Cuban 25 cycle sets.

> I have an inverted VEE at 60 feet feed with 450 ohm line that in the SSB
> portion of the band has a booming signal. I have not had much luck with it

> on the BA qrg.

The bands were somewhat funky, again. It must be the weather and the sunspot activity, from what I can tell.

> The HT-37 has got something in the VFO that is not too stable. I need to
> find the problem. Yer heartily was pretty gud but was jumping frequency a
> bit.

Yes, the HT-37 seemed to have a sticky dial mechanism mebbie. There were some others that had had wierd vfo's on HT-37's. Someone will have some tips on how to get it back in shape. Check with the BA list crowd or mebbie Nick England/KD4CPL ``Mr. Heathkit''. He would know if anyone would.

Ol' Grandma Hartley needed a big case of open heart surgery. As squirrely as she was, I was thinking it might be the mg set brushes going out. But, after some load testing, it turned out to be Grandma's grid leak and grid capacitor --- blown cap. I delved into the parts bilges and managed to come up with a 25 watt rather than a 5 watt grid leak, and a large tub mica for the grid cap rather than a small VFO ceramic thing that is more suited to a 1 watt vfo. Now she is purring along again, like her old self.

I was on Saturday night, all night, but could not scare up anyone other than a local down on the coast. I will try again later tonight and see if the band is open. I heard lots of stations, but noone came back to me. Sandy/W5TVW and the middle cow country folks were much weaker than normal.

Oh, well, that's 80 meters.....

73/ZUT DE NA4G/Bob UP

Date: Sun, 26 Oct 1997 19:00:26 EST

From: kb9iua@juno.com (Kevin L Anderson)

Subject: HW-16 fixed (?) -- now anyone QRG 40m (7030-7060)?

Hollow-state followers:

Well, I think I have my HW-16 fixed. I had also earlier bought the Phoenix/CW group buy on 40M General-class xtals (7030-7060 on the fives).

Is the QRG for 7050 still on? Evenings, weekends, on the hour, etc.? Or are folks now down on 80m with the colorburst 3579.+ frequency?

I made three QSOs Saturday afternoon, all on my 7137 xtal (I have also 7112, 7117, and 7132 I had bought earlier from the previous CW Crystals), with only one op suggesting a chirp still in the signal (plus a 588 report). Either the other two didn't notice or were used to it, or in fact my electrolytic substitutions (an 80-80 can, with a 47 and a pair of parallel 22 mfd radials under the chassis) did

the trick.

I do BTW have the HG-10B VFO, but the xtals are more fun in a backward way :-). In case one is interested, I discovered today that the size box that new blank checks come in from Deluxe, Current, et al., holds nicely, using makeshift cardboard dividers, twelve (12) xtals side-by-side, which is the number I have for 40m.

Cheers/73, watching for you tube-wise on 40m when I'm not QRPing. Kevin, KB9IUA

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* * * * *
Kevin Anderson, KB9IUA, Rock Island IL USA
kb9iua@juno.com or Kevin.L.Anderson@usace.army.mil
* * * * *

Date: Sun, 26 Oct 1997 16:46:31 -0800 (PST)

From: Ken Gordon <keng@uidaho.edu>

Subject: Re: Wednesday Night Activity

> The bands were somewhat funky, again.

"Somewhat"??? More than a little. I worked W7HOR in Spokane, Washington who is 75 miles north of me. Although we were both 599, he sounded like DX from Iceland or Greenland...VERY fluttery. Sounded nice.

> It must be the weather and the
> sunspot activity, from what I can tell.

Something sure is screwy.

> I was on Saturday night, all night, but could not scare up anyone other
> than a local down on the coast. I will try again later tonight and see
> if the band is open. I heard lots of stations, but noone came back to me.
> Sandy/W5TVW and the middle cow country folks were much weaker than normal.

I was on from 0300 to 0700: didn't hear anything on the 3579R545 QRG. My darned buzzing is gone since the temperature outside went down below 50 degrees. I still think it is the darned street lighting system.

Discovered another source of noise: whenever my children walk across the floor above me, something goes "skritch" in the cans at each step.

Did work TG7APQ last night on 40. BOY, is his fist hard to copy!!!! Weird spacing, rythm, and too many dots in all the wrong places. Anyone else know this op? I THINK he told me his name was Morales.

Bobbi and others:

On the VR tubes in the HW-16: Pair of OD3s in series. Both RCAs. Both

check nearly identically on both the Hickock 3444 and the TV-2. Using a 10K 37 watt wire wound to drop the 677 VDC to 300 VDC. Drawing exactly 39 ma. through the VR circuit, key up.

The 300 vdc feeds the plate circuit of the TX oscillator tube, and those places in the receiver which need 300 vdc. The 150 vdc reg. feeds the oscillator screen circuit, and those places in the receiver which use 150 vdc.

When using either 80 meter or 40 meter crystals on 40 meters, both VR tubes dim a bit, key down, but stay lit. Measured voltage drop is about .7 volts.

On 80, neither tube appears to dim at all, and measured voltage drop is about .2 volts.

However, when using an external VFO (HG-10B), on ANY band, keying the transmitter causes ONE of the VR tubes to extinguish (but not immediately), whereas the other one stays lit, but dims appreciably.

Sounds to me as though when the oscillator tube is operating as a crystal oscillator, it draws considerably less current than when it is being used as a buffer/amp.

In any case, something is still not right in the component area since it still chirps on any band when using crystals. Personally, I think crystal current is too high, although I have not yet measured it.

Hope to hear SOMEONE on SOMEDAY.

Ken W7EKB

Date: Sun, 26 Oct 1997 17:40:42 -0800
From: "Frank A. West" <ke6vhm@earthlink.net>
Subject: Which one?

Well I am back. Been a little under for a while. In getting all my parts together for the regen I am a little behind. I have started looking for parts for the Hartley and was wondering. I have the following available. 24A, 45, 6v6, 6au6, 6bk7 and others. Will any of these work in a Hartley circuit. If so and you might know of a circuit please help.

Oh by the way I did find some neat sockets for the 30's in the Sonora. I found 2 of the CRV-49311A's and one CMH-49311A. Fascinating looking, these are made of a fiber insulator suspended between two brackets lined with felt.

TTFN 73 Frank KE6VHM
Grid Square DM13
CW Forever

Date: Sun, 26 Oct 1997 20:29:12 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
Subject: Hartleys again - about done

Well, yesterday I threw together a "real" power supply. Found a 900VCT 250ma xfmr (with fil windings) and a UTC 6HY choke. So made the classic pi filter job using a pair of 20uf 600V Aerovox caps. I put the choke in the negative lead. Worked fine except after a half hour, Pssssssssss..... One of the caps let go. Well, key-up, the voltage hovered around 580V so no surprise I guess. Replaced both of them with a pair of 16uF at 700V and all is well.

What I ended up doing was putting a voltage divider across the output consisting of 20K and 15K in series (20W each). The tap between them is ground. So, the negative lead goes to the grid resistor of the Hartley. I have a mercury relay that shorts the 15K resistor out on key-down. In this way, I have grid-block keying (-270V key-up). The supply sits at 640V total output key up and drops to about 540 key down.

The Hartley itself stayed pretty much the same. I tried various coil taps and various grid resistors and wound up with the tap at 3 1/2 turns from the grid end, and a grid resistor of about 4K. With the pair of 3C24's I get roughly 41 watts input, 18 watts out = 43% efficiency. Grid current is 22ma, grid voltage is -100V (developed by the RF). Tuning range is 3525 to 3600KC. Observation on the spec analyzer showed the 2nd harmonic to be -38dB. Key clicks looked like at least -50. (I'll have to get an off-the-air report from a friend across town).

One thing I noticed is that backing off the link coupling resulted in a bit less drift with the key down. One problem with backing off the coupling is that the grid current increases noticeably, which is normal. So I urge any of you building a Hartley to monitor your grid current. It's as important as the plate current (maybe more if you don't want to blow the tube).

Hope to have it on the air for a trial this week. I am sure using the copper tubing tank and good caps really pays off. I have had a worse time trying to make a stable VFO using FET's!

UFO's are real! (It's the Air Force that does not exist)
E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Date: Sun, 26 Oct 1997 19:51:03 -0600 (CST)
From: Kevin Pease <hamradio@mm1001.theporch.com>
Subject: Re: Wednesday Night Activity

Sorry to Hear about old Grandma Hartly. Even though the frequency was jumping around it si the best sounding power oscilator I have ever heard.

Also I know that people are running a little low in freq which really is a problem for my rig. My home brew Glowbug rig uses a sharp collins mechanical filter and I use the rx to monitor my sending so that if I tune folks low in frequency I can't hear my own sending. Guess I need a side tone monitor for it. I fired up the 6BM8 rig and it is putting out over 10 watts however with the QRN I am not having much luck I did manage to work WB9HFK with the 10 watts. I put a computer style 3.58 in an old bliley xtal holder for a period looking xtal.

I really like the 6BM8 xmitter but fear that I need more power.

Well I hear and am trying to work W5FRS and I don't think that he hears me very well so should get back to the RX.

Kevin Pease
WB0JZG
Mount Juliet, TN.

Date: Sun, 26 Oct 1997 21:03:17 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
Subject: QRG and Hartley's...

Jack, W7QQQ and I chatted for over 30 minutes this evening from 0310 to 0344 on 7050. His one tube xtal rig sounded simply beautiful here. Very pretty, somewhat bell-like tone, and perfect keying with NO chirp. His signal level varied from down in the mud (sometimes) to over S-9 (most of the time).

He suggested, and I agreed, that a Hartley-to-Hartley contact would be pleasant, so we are starting to plan that way.

I have Grammer's article (modified by Bob), and a choice of 812A, 805, or 304TL, triode connected 6L6 (is there such a thing?), triode connected 6AG7, a 6N7 (dual triode with both sections connected in parallel).

I wonder how hard it would be to wind a plate coil out of 3" copper tubing?

For a good, stiff, HV supply I could use series connected lead-acid cells...

Le'mesee now...150 car batteries ought to give me about 1800 volts at 600 amps.

Hee hee! Shazam!

Seriously, thanks, all (mostly Bob) for the recent Hartley info.

Also, in October, although I kept all of the info which was passed around on the regency receivers, I still didn't really understand what one had to do to get such superb selectivity that the pass band was too narrow to

receive SSB signals clearly.

Was this rx using two #30 tubes, or was it fancier than that?

Ken W7EKB

Date: Mon, 27 Oct 1997 05:17:05 -0700 (MST)

From: Jack Meadows <jackmead@getnet.com>

Subject: Re: HW-16 fixed (?) -- now anyone QRG 40m (7030-7060)?

Hi Kevin,

Ken, W7EKB and Jack, W7QQQ hooked up on 7050 for a fine BA qso Sunday night. Ken was usin his trusty HW-16 and Jack was usin is one-tube 35 watter glowbug. Strong signals and solid copy both ways. Come join in.

Rumour has it that that Ken and Jack may be gatherin some parts to build some Hartleys. How sweet it is!

Best regards,
Jack W7QQQ

On Sun,
26

Oct 1997, Kevin L Anderson wrote:

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> Hollow-state followers:
> Well, I think I have my HW-16 fixed. I had also earlier
> bought the Phoenix/CW group buy on 40M
> General-class xtals (7030-7060 on the fives).
>
> Is the QRG for 7050 still on? Evenings, weekends,
> on the hour, etc.? Or are folks now down on 80m with
> the colorburst 3579.+ frequency?
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> Cheers/73, watching for you tube-wise on 40m when
> I'm not QRPing. Kevin, KB9IUA
> E E
> * * * * *
> Kevin Anderson, KB9IUA, Rock Island IL USA
> kb9iua@juno.com or Kevin.L.Anderson@usace.army.mil
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End of glowbugs V1 #144
